

Amendments to the claims (this listing replaces all prior versions):

1-2. (canceled).

3. (currently amended) A method for processing audio signals in accordance with claim [[+]] 14, wherein said first and second audio signals are associated with directional channels in a multichannel audio system.

4. (canceled).

5. (currently amended) A method for processing audio signals in accordance with claim [[4]] 3, wherein $\frac{SF1}{SF2} = \frac{ampl2}{ampl1}$, wherein $SF1$ is said first scaling factor, $SF2$ is said second scaling factor, $ampl1$ is said amplitude of said first audio signal and $ampl2$ is said amplitude of said second audio signal.

6. (original) A method for processing audio signals in accordance with claim 5, wherein said first filter and said second filter include a filter portion having a frequency response and time delay effect similar to that of the human head.

7. (canceled).

8. (previously presented) A method for processing first and second audio signals having first and second amplitudes respectively comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

wherein said first and second audio signals are associated with directional channels in a multichannel audio system,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion,

wherein $\frac{SF1}{SF2} = \frac{ampl2}{ampl1}$, wherein $SF1$ is said first scaling factor, $SF2$ is said second scaling factor, $ampl1$ is said amplitude of said first audio signal and $ampl2$ is said amplitude of said second audio signal, and

combining said filtered second signal portion with said second spectral band signal.

9. (previously presented) A method for processing first and second audio signals having first and second amplitudes respectively, comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an appearance source of sound that is a selected one of being forward and rearward,

wherein said first and second audio signals are associated with directional channels in a multichannel audio system,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion,

wherein $\frac{SF1}{SF2} = \frac{ampl2}{ampl1}$, wherein $SF1$ is said first scaling factor, $SF2$ is said second scaling factor, $ampl1$ is said amplitude of said first audio signal and $ampl2$ is said amplitude of said second audio signal, and

combining said filtered first signal portion, said filtered second signal portion and said second spectral band signal.

10. (canceled).

11. (previously presented) A method for processing audio signals comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

wherein said first and second audio signals are associated with directional channels in a multichannel audio system,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion, and

combining said filtered second signal portion with said second spectral band signal.

12. (previously presented) A method for processing first and second audio signals having first and second amplitudes respectively comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

wherein said first and second audio signals are associated with directional channels in a multichannel audio system,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion, and

combining said filtered first signal portion, said filtered second signal portion and said second spectral band signal.

13. (currently amended) In an audio system having a first audio signal and a second audio signal, said first and second audio signals having amplitudes, a [[A]] method for processing audio signals in accordance with claim 1 comprising:

dividing said first audio signal into a first spectral band signal and a second spectral band signal

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion, and

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

wherein $\frac{SF1}{SF2} = \frac{ampl2}{ampl1}$, wherein $SF1$ is said first scaling factor, $SF2$ is said second scaling factor, $ampl1$ is said amplitude of said first audio signal and $ampl2$ is said amplitude of said second audio signal.

14. (currently amended) In an audio system having a first audio signal and a second audio signal, said first and second audio signals having amplitudes, a [[A]] method for processing audio signals in accordance with claim 1, further comprising:

dividing said first audio signal into a first spectral band signal and a second spectral band signal

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

filtering said first signal portion by a first filter to produce a filtered first signal portion, and

filtering said second signal portion by a second filter to produce a filtered second signal portion.

15. (original) A method for processing audio signals in accordance with claim 14, wherein said first filter and said second filter include a filter portion having a frequency response and time delay effect similar to that of the human head.

16. (original) A method for processing audio signals in accordance with claim 15, wherein one of said first filter or said second filter has filter portion having a frequency response and time delay effect similar to frequency response and time delay effect of the human head on a sound wave arriving from the front of said human head and the other of said first filter or second filter has filter portion having a frequency response and time delay effect similar to frequency response and time delay effect of the human head on a sound wave arriving from the rear of said human head.

17. (original) A method for processing audio signals in accordance with claim 15, wherein said first filter and said second filter have a filter portion having frequency response and time delay

effect similar to frequency response and time delay effect of the human head on a sound wave arriving from the front of said human head.

18. (original) A method for processing audio signals in accordance with claim 15, wherein said first filter and said second filter have a filter portion having a frequency response and time delay effect similar to frequency response and time delay effect of the human head on a sound wave arriving from the rear of said human head.

19. (original) A method for processing audio signals in accordance with claim 15, wherein said first filter and said second filter include a filter portion having a frequency response and time delay effect inverse to said filter having a frequency response and time delay effect similar to the human head.

20. (previously presented) In an audio system having a first audio signal and a second audio signal, said first and second audio signals having amplitudes, a method for processing said audio signals comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

filtering said first signal portion by a first filter to produce a filtered first signal portion,
and

filtering said second signal portion by a second filter to produce a filtered second signal portion,

wherein one of said first filter and said second filter has a flat frequency response.

21. (previously presented) A method for processing audio signals in accordance with claim 20, wherein the other of said first filter and said second filter has a flat frequency response.

22. (previously presented) In an audio system having a first audio signal and a second audio signal, said first and second audio signals having amplitudes, a method for processing said audio signals comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion, and

combining said filtered first signal portion with said second audio signal to produce a first combined signal.

23. (previously presented) A method for processing audio signals in accordance with claim 22, with an audio system including a directional loudspeaker unit, said combining further including combining said second spectral band signal and said filtered second signal portion so that said first combined signal includes said filtered first signal portion, said filtered second signal portion, said second spectral band signal, and said second audio signal and further comprising,

electroacoustically transducing, by said directional loudspeaker unit, said first combined signal.

24-26. (canceled).

27. (currently amended) In an audio system having a first audio signal and a second audio signal, said first and second audio signals having amplitudes, a ~~[[A]]~~ method for processing audio signals in accordance with claim 1 comprising:

dividing said first audio signal into a first spectral band signal and a second spectral band signal

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion, and

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward,

wherein the sum of said first scaling factor and said second scaling factor is one.

28-46. (canceled).

47. (currently amended) In an audio system having a plurality of directional channels, a first audio signal and a second audio signal, said first and second audio signals representing adjacent directional channels on the same lateral side of a listener in a normal listening position, a [[A]]
method for processing audio signals ~~in accordance with claim 46, further~~ comprising:

a method for processing said audio signals, comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first time varying calculated scaling factor related to the amplitude of said first audio signal to create a first signal portion;

scaling said first spectral band signal by a second time varying calculated scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to make the apparent source of sound one of forward and rearward of said normal listening position,

filtering said first signal portion by a first filter to produce a filtered first signal portion,
and

filtering said second signal portion by a second filter to produce a filtered second signal portion.

48. (previously presented) A method for processing first and second audio signals representing adjacent directional channels on the same lateral side of a listener in a normal listening position comprising,

dividing said first audio signal into a first spectral band signal and a second spectral band signal;

scaling said first spectral band signal by a first time varying calculated scaling factor related to the amplitude of said first audio signal to create a first signal portion; and

scaling said first spectral band signal by a second time varying calculated scaling factor related to the amplitude of said second audio signal to create a second signal portion,

filtering said first signal portion by a first filter to produce a filtered first signal portion,

filtering said second signal portion by a second filter to produce a filtered second signal portion, and

combining said filtered first signal portion with said second audio signal to produce a first combined signal.

49. (original) A method for processing audio signals in accordance with claim 48 with an audio system including a directional loudspeaker unit, said combining further including combining said second spectral band signal and said filtered second signal portion so that said first combined signal includes said filtered first signal portion, said filtered second signal portion, said second spectral band signal, and said second audio signal, said method further comprising,

electroacoustically transducing, by said directional loudspeaker unit, said first combined signal.

50-53. (canceled).

54. (currently amended) In an audio system having a first audio signal and a second audio signal, said first and second audio signals having amplitudes, a [[A]] method for processing audio signals in accordance with claim 1, further comprising

dividing said first audio signal into a first spectral band signal and a second spectral band signal

scaling said first spectral band signal by a first scaling factor related to the amplitude of said first audio signal to create a first signal portion,

scaling said first spectral band signal by a second scaling factor related to the amplitude of said second audio signal to create a second signal portion,

adjusting said first and second scaling factors to create an apparent source of sound that is a selected one of being forward and rearward, and

time delaying said first spectral band signal relative to said second spectral band signal.

55. (cancelled)

56. (new) A method for processing audio signals in accordance with claim 13, wherein said second scaling factor is proportional to said amplitude of said first audio signal.

57. (new) A method for processing audio signals in accordance with claim 13, wherein said first scaling factor and said second scaling factor are variable with respect to time.

58. (new) A method for processing audio signals in accordance with claim 14, wherein said second scaling factor is proportional to said amplitude of said first audio signal.

59. (new) A method for processing audio signals in accordance with claim 14, wherein said first scaling factor and said second scaling factor are variable with respect to time.

60 (new) A method for processing audio signals in accordance with claim 27, wherein said second scaling factor is proportional to said amplitude of said first audio signal.

61. (new) A method for processing audio signals in accordance with claim 27, wherein said first scaling factor and said second scaling factor are variable with respect to time.

62. (new) A method for processing audio signals in accordance with claim 47, wherein said second scaling factor is proportional to said amplitude of said first audio signal.

63. (new) A method for processing audio signals in accordance with claim 47, wherein said first scaling factor and said second scaling factor are variable with respect to time.

64. (new) A method for processing audio signals in accordance with claim 54, wherein said second scaling factor is proportional to said amplitude of said first audio signal.

65. (new) A method for processing audio signals in accordance with claim 54, wherein said first scaling factor and said second scaling factor are variable with respect to time.

66. (new) A method for processing audio signals in accordance with claim 5, further comprising combining said filtered first signal portion with said second audio signal.

67. (new) A method for processing audio signals in accordance with claim 3, further comprising the step of combining said filtered first signal portion with said second audio signal.

68. (new) A method for processing audio signals in accordance with claim 14, further comprising, combining said filtered first signal portion with said second audio signal to produce a first combined signal.

69. (new) A method for processing audio signals in accordance with claim 22, with an audio system further including a directional loudspeaker unit and a loudspeaker unit distinct from said directional loudspeaker unit and further comprising, combining said second spectral band and said filtered second signal portion to produce a second combined signal; electroacoustically transducing, by said loudspeaker unit, said second combined signal; and electroacoustically transducing, by said directional loudspeaker unit, said first combined signal.

70. (new) A method for processing audio signals in accordance with claim 22 with an audio system including a directional loudspeaker unit and a loudspeaker unit distinct from said directional loudspeaker unit, said distinct loudspeaker unit substantially limited to radiating spectral components in said first spectral band, said combining further comprising, combining said second spectral band signal so that said first combined signal includes said filtered first

signal portion, said second spectral band signal, and said second audio signal, said method further comprising, electroacoustically transducing, by said directional loudspeaker unit, said first combined signal; and electroacoustically transducing, by said loudspeaker unit, said filtered second signal portion.

71. (new) A method for processing audio signals in accordance with claim 48 with an audio system further including a directional loudspeaker unit and a loudspeaker unit distinct from said directional loudspeaker unit, said method further comprising, combining said second spectral band signal and said filtered second signal portion to produce a second combined signal; electroacoustically transducing, by said loudspeaker unit, said second combined signal; and electroacoustically transducing, by said directional loudspeaker unit, said first combined signal.

72. (new) A method for processing audio signals in accordance with claim 48 with an audio system further including a directional loudspeaker unit and a loudspeaker unit distinct from said directional loudspeaker unit, said distinct loudspeaker unit substantially limited to radiating spectral components in said first spectral band, said combining further comprising, combining said second spectral band signal so that said first combined signal includes said filtered first signal portion, said second spectral band signal, and said second audio signal, said method further comprising, electroacoustically transducing, by said directional loudspeaker unit, said first combined signal; and electroacoustically transducing, by said loudspeaker unit, said filtered second signal portion.

73. (new) A method for processing audio signals in accordance with claim 52, wherein said audio signal corresponds to a directional channel in a multichannel audio system.